

## Yuma Prvg. Grnd., Ariz.

### Artillerymen Fire SADARM

THE 1st Battalion, 17th Field Artillery, traveled here from Fort Sill, Okla., to participate in a six-week test of the 155mm Sense and Destroy Armor, or SADARM, precision artillery projectile. The battalion brought eight M109 Paladin self-propelled howitzers and a full complement of support vehicles to Yuma to conduct four fire missions consisting of 24 rounds apiece, each at a different time of day.

SADARM tests have been ongoing at Yuma Proving Ground since the late 1980s but, unlike earlier stages of testing focused on research and development, this test required that projectiles be fired in strict

accordance with current Army battlefield doctrine.

Targets were self-propelled howitzers and a Soviet-model command and control vehicle concealed behind protective berms and under camouflage netting in an area 12 miles from the Paladins, as they would be in combat. Each of the target howitzers was in operating condition during the test, and heaters in their gun tubes mimicked recently fired weapons.

SADARM is an outgrowth of smart weapons research that began in the early 1960s. Unlike "smart bombs" used during the Persian Gulf War and in the NATO campaign in Kosovo, SADARM is a true "fire and forget" weapon.

SADARM projectiles look and fire like conventional projectiles but contain two submunitions that deploy over the target area to acquire and destroy enemy equipment. At several hundred feet above the ground, each submunition fires a penetrant that attacks enemy artillery from its most vulnerable direction — above the target. Program officials say SADARM will be a potent and

reliable way to suppress enemy counter-battery fire on the battlefield of the future.

The SADARM test also gave the battalion an opportunity to train intensively in a variety of areas. Soldiers fired more than 1,500 high-explosive rounds during their six-week stay, a number they would normally fire in an eight-month period.

"We fired different combinations of projectiles and charges normally reserved only for wartime, so this was a unique opportunity," said MAJ John Gillette, 1st Bn. operations officer. "Plus, we were able to do things not usually available to us. We loaded and airdropped ammunition from a C-17 aircraft and direct-fired our howitzers against scrap vehicles. We used our Mk. 19 and M-203 grenade launchers and fired the .50-caliber machine guns mounted on each vehicle."

Gillette said the battalion's participation in the test allowed the artillery unit to train in all its mission-essential tasks, including deployment to a remote location, delivering accurate fire support, and sustaining and protecting the force. — *Chuck Wullenjohn, YPG Public Affairs Office*



## Fort Drum, N.Y.

### New Equipment for Sappers

SAPPERS from 41st Engineer Battalion, 10th Mountain Division, here, trained with new equipment during exercise Digital Mountain Peak, to prepare for the unit's coming Joint Contingency Force Army Warfighting Experiment at the Joint Readiness Training Center, Fort Polk, La.

CPT Patrick Sullivan, the assistant division engineer liaison officer, said one tool new to the unit is the Mini-Mine Detector, which can sweep a 180-degree arc, 1 meter in front its operator, yet is light and small enough to be safely used in a prone po-



The visit to YPG also allowed soldiers of the 1st Bn., 17th FA, to fire some of their smaller weapons. Here a Paladin crew conducts close-in defense training with the M109's M-2 .50-caliber machine gun.



PFC Matthew J. Jenkins

**The new High-Mobility Engineer Excavator tested at Fort Drum will ultimately replace the older Small Emplacement Excavators now in use.**

sition to avoid enemy fire.

The Lightweight Mobile Obstacle Breacher is a new man-portable, rocket-propelled detonation cord that clears anti-personnel mines in a path 250 feet long and 1.5 feet wide.

"The path where the LMOB

explodes will mark itself," Sullivan said. "Everything in its path is removed, and you're going to see nothing on the ground but mud or sand and a straight line through it."

The new, lighter version of the Volcano minelaying device can lay a minefield about 900 feet long and more than 110 feet wide, Sullivan said. "It's attached to a Humvee to allow more mobility than the larger Volcano, which requires a 5-ton truck."

Another new device used during Mountain Peak was the M-Gator, a six-wheeled vehicle that's more mobile than a Humvee, yet capable of hauling 1,400 pounds of equipment. It can be used for casualty evacuations, laying communication lines, clearing obstacles and other tasks.

The new Skid Steer resembles a small bulldozer-fork-

lift, and has attachments to be used for tasks such as installing concertina wire, pickets and posts; drilling, excavating or filling holes; breaking pavement or concrete obstacles; and carrying equipment.

A new High-Mobility Engineer Excavator will phase out the older Small Emplacement Excavator, Sullivan said, providing better mobility, reliability and more capacity.

The engineers also trained on equipment that will improve their survivability on the urban battlefield. For clearing obstacles and rubble, soldiers will

have the Robotic T-3 Dozer, which can be remotely operated from as far as 1,000 feet from the danger area.

For reconnaissance, they can rely on Robotic Support to MOUT, a device small enough to enter sewers and tunnels or inspect under vehicles. RBOT, as it's called, also has sound and light equipment so the operator can use it to remotely approach subjects, shine a light on their faces and uniforms, and speak to them to identify them as friend or foe. — PFC Matthew J. Jenkins, Fort Drum PAO



SFC Lek Mateo

**SPC Johnny A. Garcia (left) and a Czech soldier work on the walls of the command bunker built at one of Grafenwöhr Training Area's live-fire ranges during the joint U.S.-Czech project.**

## Grafenwöhr, Germany

### Engineers Build Cultural Bridges

BUILDING bridges and tearing down barriers are what the Texas Army National Guard's Company C, 176th Engineer Battalion, does best. But the bridge soldiers built this summer wasn't made of wood or steel, but of something stronger.

The Guard soldiers invited six engineers from the Military University of Ground Forces in Vyskov, Czech Republic, to join them in the company's two-week annual training for the construction of a command bunker for a live-fire range at the 7th Army Training Command's Grafenwöhr Training Area. U.S. and Allied forces will use the bunker to train for

peacekeeping missions.

SSG Rodolfo Marroquin said he hopes the Czechs learned something from the soldiers in the Guard unit, but the learning process worked both ways.

"There is a wealth of real-world knowledge within our unit," Marroquin said. "Some of our members are professional engineers, and others manage their own construction companies in the civilian world." On the other hand, Marroquin said, "the Czechs offer the Texans a rare insight into the culture and engineering practices of their country. They have ideas that we can learn from, too."

The Guard and the Czech engineers cautiously broke ground on the project site, which was strewn with unexploded ordnance from years of use,

and together faced some unseasonably frigid temperatures that, for the Texans at least, provided an extreme change from the triple-digit heat and drought back home.

Although the language barrier posed some challenges, the Czech soldiers had no problem understanding the Texans' construction plans, because engineering training is standardized around the world. Czech 2nd Lt. Zbynek Olsak said the main difference between the two

countries was the equipment.

SSG Susan Stewart, an Army Reservist from Austin's 300th Military Intelligence Co. who helped interpret for the Czechs, described their English-speaking skills as "survivable — that means they know enough to get by. But the Czech soldiers take their involvement with NATO very seriously and want to demonstrate their commitment." — SFC Lek Mateo, 100th Mobile Public Affairs Detachment